

## YOUTHDALE CHILD AND ADOLESCENT SLEEP CENTER

The Youthdale Child and Adolescent Sleep Center opened in October 2006. Since then it has treated a large number of children from all over Ontario and a number of children from other parts of Canada and abroad. The clinic is the first - and currently the only - Independent Health Facility focusing on

sleep and sleep disorders in children and adolescents in

Ontario. It covers a wide spectrum of sleep problems with the philosophy that if children have poor sleep it will impact their physical growth, their academic performance, their school attendance and generally stop them from reaching their full potential. In the first year of operation we have had many dramatic successes. For example, a 16-year-old patient

from Barrie who saw his grade average improve by 30% after correcting his body clock. This allowed him, for the first time, to consider going to university.

It is well known in the adult scientific literature that sleep problems are not only a manifestation of psychiatric illness but can cause psychiatric problems such as depression. For this reason there is often an added reason for addressing children's sleep problems in the sense that it not only helps improve their sleep, but can also potentially help other brewing medical problems including psychiatric issues. An example might be of a child with repeated sleep disruption who does not label himself as sleepy but has self-stimulating behavior and may be misdiagnosed as having ADD (attention deficit disorder). Identifying the sleep problem may

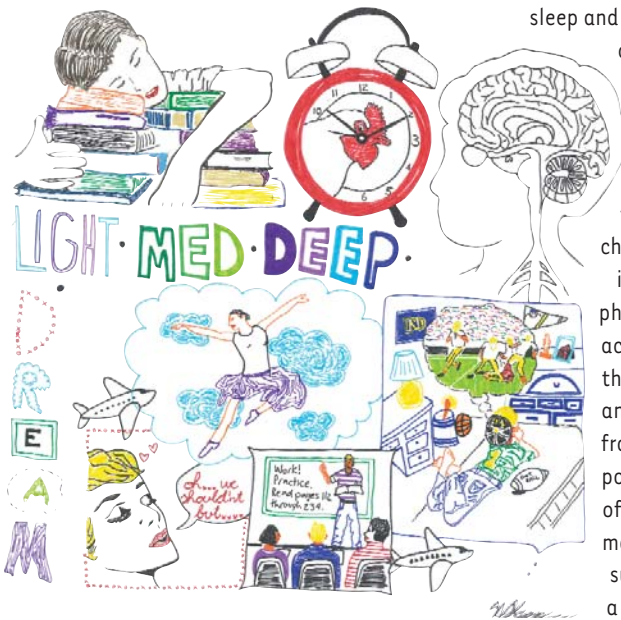
help correct the behavior that led to the diagnosis of attention deficit. Recent studies have shown that sleep problems can lead to self-harm and suicide. Given that suicide is a leading cause of death in adolescents, any intervention that may decrease suicide should be considered. This area is a high priority in the clinical and research program at the Youthdale Child and Adolescent Sleep Center.

The Youthdale Child and Adolescent Sleep Centre is based within the renowned Youthdale facility at 227 Victoria Street, Toronto. It is staffed by several physicians with both psychiatric and pediatric backgrounds and currently has attracted a number of international fellows from places as diverse as Pakistan, Israel and Korea.

The clinic has a number of current research projects that will advance the understanding of sleep problems in children. One of the areas in which there is particular expertise is in circadian rhythm disorders and a unique feature of the clinic is that it does Dim Light Melatonin Onset studies. This enables doctors to understand problems that children - who go to bed late and get up late - have with their daytime function. Another research focus is the role of sleep in the epidemic of childhood obesity.

The Director of the Clinic, Dr. Colin Shapiro, has published a Children's' book entitled "Who Needs to Sleep Anyway" which deals with sleep in animals and emphasizes to younger children the importance of sleep. The clinic has published ten leaflets on various aspects of sleep including topics such as Prader Willi Syndrome, Attention Deficit and Phase Delay Syndrome. These are available on the clinic website [www.sleepontario.com](http://www.sleepontario.com). The clinic has an active program of providing education to schools. Further information about this clinic can be obtained from the secretary Amanda, at 416 703 0505.

The clinic has an advisory board including representatives from Sick Children's Hospital, North York General Hospital, Hincks Dellcrest and Youthdale. International advisors include Dr. Mary Carskadon at Brown University, Agnes Robson from Scotland and Dr. Alan Apter of Sackler School of Medicine, University of Tel Aviv.



## Excerpt from “Sleep Disorders Presenting as Common Pediatric Problems”

From: Practice – CMAJ, February 26, 2006

Jo Goll, Colin Shapiro

Common pediatric conditions often associated with an underlying sleep disorder

### Medical

- gastroesophageal reflux
- obesity
- failure to thrive
- musculoskeletal pains

### Sleep-related

- daytime sleepiness
- snoring
- restlessness during sleep
- bedwetting

### Behavioural or psychological

- hyperactivity and attention deficits
- learning difficulties
- reduced achievement at school
- aggression
- cognitive deficits
- alcohol or drug use, cigarette smoking
- depression
- anxiety

## From “Unmasking Pediatric Sleep Disorders”

The Canadian Journal of Diagnosis, May 2006

Jo Goll, Colin Shapiro

### Pamela’s problem

- Pamela, 3, suffers from repeated ear and throat infections and stunted growth, and was taken for an ear, nose and throat assessment
- It was discovered that she had very large tonsils and a tonsillectomy was arranged.
- Immediately after the tonsillectomy, her parents noticed that Pamela no longer slept in the awkward and seemingly uncomfortable fashion that she had before the operation.
- Pamela’s parents subsequently learned that this awkward position (i.e. on her elbows and knees with her buttocks in the air and her neck hyperextended) is a sleeping style typical of children with Obstructive Sleep Apnea Syndrome.
- In the ensuing year, Pamela had a four-inch growth spurt. The pediatrician commented that the growth spurt was probably related to the return of a normal sleep pattern.

### Take-home message

- Pediatric sleep disorders vary in etiology and primary symptoms; however secondary developmental problems caused by poor sleep are similar throughout the spectrum of disorders.
- Increasing general awareness among pediatric clinicians of the possible indicators of sleep problems must become a priority.
- Problems, such as snoring and sleepiness, cannot be ignored.
- Problems such as hyperactivity and bedwetting cannot be allowed to masquerade as autonomous disorders.
- It is crucial that child health professionals develop familiarity with pediatric sleep disorders and ask their patients and their parents appropriate questions to facilitate the diagnosis of sleep disorders in clinical interviews.



Jo Goll was a visiting student to the sleep programme in Toronto. She and Dr. Shapiro wrote the above two articles, extracts of which appear on this page. Ms. Goll is currently a PhD student at the Dementia Research Centre, which is part of the Institute of Neurology at University College London. With the Cognitive Disorders Clinic in the National Hospital for Neurology and Neurosurgery, Queen Square, she is researching non-verbal auditory cognition among dementia populations, particularly focusing upon Frontotemporal Lobar Degeneration. The main focus of her project involves the design and use of auditory neuropsychological tests, suitable for clinical populations, which examine cognition from early perceptual to semantic stages. In particular, she is investigating such auditory processes as timbre discrimination, size perception, simultaneous and sequential sound segregation, and the attribution of meaning to environmental sounds."

*J Clin Sleep Med. 2008 Apr 15;4(2):129-36.*

## Obesity and risk of sleep related upper airway obstruction in Caucasian children.

**Kohler M, Lushington K, Couper R, Martin J, van den Heuvel C, Pamula Y, Kennedy D.**

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## Nocturnal Enuresis

For this flyer and other pamphlets please go to  
[www.sleepontario.com](http://www.sleepontario.com)

*Learn Mem. 2008 Apr 25;15(5):373-7.*

## Sleep in children improves memory performance on declarative but not procedural tasks.

**Wilhelm I, Diekelmann S, Born J.**

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Sleep supports the consolidation of memory in adults. Childhood is a period hallmarked by huge demands of brain plasticity as well as great amounts of efficient sleep. Whether sleep supports memory consolidation in children as in adults is unclear. We compared effects of nocturnal sleep (versus daytime wakefulness) on consolidation of declarative (word-pair associates, two-dimensional [2D] object location), and procedural memories (finger sequence tapping) in 15 children (6-8 yr) and 15 adults. Beneficial effects of sleep on retention of declarative memories were comparable in children and adults. However, opposite to adults, children showed smaller improvement in finger-tapping skill across retention sleep than wakefulness, indicating that sleep-dependent procedural memory consolidation depends on developmental stage.

**BACKGROUND:** Obesity is thought to be a significant risk factor for upper airway obstruction during sleep in children. However, the moderating influences of age and ethnicity have not been well explored and the relative contribution of obesity per se to upper airway obstruction has yet to be quantified. Given the markedly increasing prevalence of childhood obesity, an objective understanding of the impact of obesity on upper airway obstruction is important. The purpose of the present study was to examine the interaction between obesity, age and upper airway obstruction in Australian Caucasian children referred for evaluation of snoring. **METHODS:** This was a retrospective case study involving 190 children (4-12 y) who were referred for evaluation of upper airway obstruction and underwent one night of polysomnography at the Adelaide Women's and Children's Hospital Sleep Disorders Unit. Children were classified as Infrequent Snorers (n = 80), Habitual Snorers (n = 68) or Obstructive Sleep Apnea Syndrome (OSAS) (n = 42) (i.e., obstructive apnea hypopnea index (OAHI) > or = 1). **RESULTS:** Thirty-five percent (66/190) of children were overweight or obese. Body mass index but not age was a significant but weak predictor of OAHI (< 5% of the variance). **CONCLUSION:** In Australian Caucasian children aged 4-12 years who snore, obesity but not age was a significant, albeit weak, predictor of upper airway obstruction during sleep.

*Behav Sleep Med. 2008 Apr;6(2):89-105.*

## Cosleeping versus solitary sleeping in children with bedtime problems: child emotional problems and parental distress.

**Cortesi F, Giannotti F, Sebastiani T, Vagnoni C, Marioni P.**

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This study investigated sleep, behavioral and emotional problems, and parental relationships and psychological distress in a group of school-aged children with bedtime problems and persistent cosleeping, compared to solitary sleepers and controls. Participants were 148 school-aged children with bedtime problems (44 cosleepers, 104 solitary sleepers) and 228 healthy peers. Results suggested that cosleepers have a significantly later bedtime, shorter nighttime sleep duration, higher Children's Sleep Habits Questionnaire (CSHQ) bedtime resistance and sleep anxiety scores, and more behavioral and emotional problems compared to other groups. Parents of cosleepers have a significantly higher level of psychological and couple distress. A past history of sleep problems, couple and maternal distress, CSHQ bedtime resistance, sleep anxiety, and night wakings subscale scores, and nighttime fears were significantly predictive of cosleeping. Thus, when cosleeping is present, the child's emotional adjustment, family relationships, and parental psychological problems should be investigated.

## I'm not Waving – I'm Drowning

By Jean A. Gittins

I wish I knew what's happening,  
I wish someone could see  
That I am not malingering  
There's something wrong with me

Perhaps I'm simply going mad  
I always need to sleep,  
And every time I start to laugh  
I fall down in a heap

I used to be quite good at school  
A rather clever lass  
But now my marks are awful,  
I keep dozing off in class.

My Mum says, I'll grow out of it,  
If I'm not late to bed,  
My Dad thinks I'm bone idle  
I just wish that I was dead

I'm almost suicidal,  
How much can one girl take?  
I need to sleep 10 times a day,  
At night I lay awake.

I wish I knew what's happening  
Life used to be such fun,  
Now it's a fight to stay awake,  
Am I the only one?

Who knows I'm not malingering?  
Oh God, please make them see,  
I don't do it on purpose,  
There is something wrong with me.

For referral forms please go to:  
[www.sleepontario.com](http://www.sleepontario.com)

## Balthus



*Golden Afternoon by Balthus, 1957*

### By Deena Sherman

*Golden Afternoon* by the French artist Balthus was sold at Sotheby's in 2004 for over three million dollars – a record for the artist at an auction. The huge six-and-a-half foot square oil on canvas was painted while Balthus was living on an old farm in Burgundy in 1957. It depicts a woman in a red outfit taking an afternoon nap. The open windows, her bare feet and the cat snoozing nearby suggest a calm, warm day. *Golden Afternoon* is different from many of Balthus' other major paintings which have notable areas of light and dark.

Born Balthazar Klossowski in 1908, Balthus was the son of two Polish painters, Erich Klossowski and Baladine Klossowska. When he was 16, Balthus became pre-occupied with painstakingly copying the work of old masters in the Louvre in Paris. The exercise must have stood him in good stead, because many years later, the Louvre bought one of Balthus' own paintings, making him one of the few artists to have a painting exhibited there while he was still alive. Balthus died a few weeks short of his 93rd birthday in 2001 at his home in Switzerland. He is considered one of the greatest realist painters of the 20th-century.

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